

June 14, 2011



U.S. Department  
of Transportation

East Building, PHH – 30  
1200 New Jersey Avenue, Southeast  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 15036

EXPIRATION DATE: May 31, 2013

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: UTLX Manufacturing, Inc.  
Alexandria, LA
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, marking, sale and use of non-DOT specification tank cars consisting of an inner pressure vessel and an outer protective for use in transportation of hazardous materials that are toxic-by-inhalation and subject to the requirements and limitations stated below. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
  - c. Party status to this special permit will not be granted.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.31(e), 173.244, 173.314, 179.102-2, and 179.102-3, in that alternative packaging is authorized.

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5. BASIS: This special permit is based on the application of UTLX Manufacturing, Inc. dated June 1, 2010, and supplemental information dated August 18, 2010, August 23, 2010 and January 26, 2011, submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	P/G
Chlorine	2.3	UN1017	n/a
Chloropicrin	6.1	UN1580	I
Dimethyl sulfate	6.1	UN1595	I
Dinitrogen tetroxide	2.3	UN1067	n/a
Ethyl chloroformate	6.1	UN1182	I
Hexachlorocyclopentadiene	6.1	UN2646	I
Hydrogen cyanide, stabilized with less than 3 percent water	6.1	UN1051	I
Methyl bromide	2.3	UN1062	n/a
Phosphorus trichloride	6.1	UN1809	I
Sulfur dioxide	2.3	UN1079	n/a
Sulfur trioxide	8	UN1829	I
Sulfuric acid, fuming with 30 percent or more free sulfur trioxide	8	UN1831	I
Titanium tetrachloride	8	UN1838	II

**June 14, 2011**7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification tank cars comprised of a commodity retaining inner tank installed inside an outer tank protective structure. Each tank car shall be manufactured and tested in accordance with a UTLX Manufacturing, Inc. Certificate of Construction and accompanying drawings on file with DOT prior to construction and the requirements outlined in this special permit.

(1) The inner commodity-retaining tank must be a fusion welded pressure vessel manufactured to comply with the requirements for a DOT 105A300W specification tank car tank. The commodity tank must be constructed of normalized carbon steel with a minimum shell thickness of 0.468", a minimum head thickness of 0.879", and a test pressure of 300 psig.

(2) The outer support structure shall be constructed of normalized carbon steel with a minimum shell thickness of 0.777" and minimum head thickness of 0.879" (after rolling or forming). Additionally:

- i. The outer support structure head shall be constructed to a 2:1 elliptical shape;
- ii. The support system, which includes the saddle structure, the upper and lower stand-offs, and the welded protective housing for the commodity tank must be manufactured per UTLX Manufacturing, Inc. Certificate of Construction number , and capable of withstanding a 15 mph coupling event with a maximum strain of 25% of failure for each of the component. In addition, calculations demonstrating compliance with 179.220-15 shall be submitted to the Associate Administrator for Railroad Safety, FRA at the address specified in paragraph 10.a. prior to the first loaded movement.
- iii. The annular space between the inner commodity tank and the support structure shall be equipped with insulation and a thermal protection system complying with 49 CFR 173.314(k).

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(3) Tank material shall be TC-128, Grade B with a minimum tensile strength of 81,000 p.s.i. and a minimum elongation of 19 percent in 2 inches (longitudinal) welded condition.

(4) For both the commodity tank and support structure, each plate-as-rolled must be Charpy V-notch impact tested transverse to the direction of rolling at -30° Fahrenheit and longitudinal to the direction of rolling at -50° Fahrenheit in accordance with ASTM E23. Transverse and longitudinal refer to the direction of the long axis of the test specimen. The test coupons for each direction must simulate the in-service condition of the material and must meet the minimum requirement of 15 ft-lb average for three specimens, with no single value below 10 ft-lb and no two below 15 ft-lb at the reference temperature.

(5) The tank car shall comply with the requirements of Subparts A and B of Part 179 except that AAR Tank Car Committee approval is not mandatory prior to construction.

(6) After welding, the inner commodity tank and the support structure must be post weld heat treated as a unit at the temperatures and durations specified in Appendix W of the AAR Specification for Tank Cars and Union Tank Car's Manufacturing Plan submitted as part of the application. Time and temperature records for the heating process shall be maintained for 5 years after the date of manufacture.

(7) Pressure relief device must be as provided in §179.15 except that the start to discharge pressure may be 50% of the minimum tank burst pressure. Each pressure relief device must be tested in accordance with § 179.100-19.

(8) The top fittings protection system must be as provided in 179.100-12 except that the protective housing may be welded to the commodity tank nozzle reinforcing pad and nozzle mounting flange. The details of construction (drawings) shall be approved by the Associate Administrator for Railroad Safety, FRA at the address specified in paragraph 10.a. prior to construction. The top fitting system and nozzle shall comply with § 179.102-3.

(9) Closures for openings shall comply with § 179.100-17.

(10) Openings in the support structure must be plugged to provide a leak tight joint except when the commodity tank is being loaded or unloaded. During loading and unloading, the plugs may be removed to inspect for and drain any condensation or other concerns. Reinstallation of the plug shall not require any additional qualification of the plug connection.

(11) Bottom outlets and inner heating coils are prohibited.

b. MARKING - The tank car shall be stenciled "DOT-SP 15036" and "SPECIFICATION PENDING" in letters and numerals at least 4" high in a contrasting color above the qualification stencil. The marking "SPECIFICATION PENDING" shall be marked in place of any DOT Specification mark and shall be replaced no later than six months after a specification for the tank car has been approved. The marking "DOT-SP 15036" shall be immediately above the "SPECIFICATION PENDING" marking.

c. INSPECTION/QUALIFICATION - The following provisions apply to tank cars constructed or operated under the terms of this special permit:

(1) Inspections must be performed in accordance with the "Qualification, Maintenance, and Inspection Plan - UTLX Prototype Tank Car" submitted with the UTC Special permit application on file with PHMSA. In addition:

- i. The requirements of § 179.220-23 and § 180.517 apply; and
- ii. Deviations from the plan are allowed only after receipt of written approval from the Associate Administrator for Railroad Safety(RRS-1), Federal Railroad Administration at the address shown in paragraph 10(a) of this special permit.

(2) In addition to tank cars in commodity service, the inspections identified above shall be performed on any tank car undergoing accelerated life testing when the tank car reaches its two year equivalent mileage or an

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event is recorded that is suspected of creating stresses exceeding the stress criteria prescribed in paragraph 7.(c)(3)iv.

(3) Prior to starting construction of the first tank car under the terms of this special permit, Union Tank Car Company shall submit an accelerated life test plan. The plan must be approved by the Associate Administrator for Railroad Safety (RRS-1), FRA before the tank cars can be used in commerce. The plan must include the following:

- i. Reporting marks and numbers of involved tank cars;
- ii. Route(s) and mileage (loaded and empty);
- iii. Data to be collected and instrumentation to be employed; and
- iv. Criteria used to trigger early inspection and engineering justification for those values.

d. OPERATIONAL CONTROLS -

(1) The requirements of § 173.24b(a) and the maximum permitted filling limit requirements of § 173.314 apply to shipments made under this special permit.

(2) The quantity of chlorine loaded into the tank car may not exceed 90 tons unless approved by the Associate Administrator for Railroad Safety (RRS-1), Federal Railroad Administration at the address shown in paragraph 10.a. of this special permit.

(3) Persons seeking to operate cars built under this special permit must acknowledge owner's program of maintenance and qualification in a written, signed document which shall be made available to a representative of the US Department of Transportation upon request.

8. SPECIAL PROVISIONS:

a. The requirements of 49 CFR Part 179, Subparts A and B apply unless specifically exempted by this special permit.

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b. At the end of each six month period of the accelerated test plan, specified in paragraph 7.c.3., Union Tank Car Company, or the entity operating the tank car shall provide a written report to the FRA at the address identified in paragraph 10.a. The report may be sent via e-mail or other means and must contain at least:

- (1) Miles traveled;
- (2) Routing and yards entered;
- (3) Recorded values exceeding the prescribed critical values; and
- (4) Maximum values relative to the prescribed critical values.

c. During the manufacturing process of each of the first ten tank cars authorized under this special permit hold points shall be imposed to provide for FRA oversight of the manufacturing process. UTLX Manufacturing must provide at least five (5) working days advance notification of the approach of a hold point to the FRA. If the FRA cannot inspect at the indicated hold point a designated representative will decline in writing and UTLX may proceed with manufacturing. The hold points shall be imposed at:

- (1) Material inspection
- (2) Finished tubs of commodity tank and support structure.
- (3) Commodity tank and support structure prior to stress relief.
- (4) Insertion of commodity tank into support structure, application of stand-offs, and closing seam.
- (5) Valve application and leak test per authorized methods.
- (6) Final inspection.

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d. Initial construction shall be limited to ten (10) tank cars. Additional cars may be authorized by the Associate Administrator for Railroad Safety, FRA after initial service testing.

e. To certify that the tank car complies with all requirements of this special permit the manufacturer shall install tank identification plates as specified in Section 4.0 of Appendix C of the Manual of Standards and Recommended Practices, Section C Part III, Specification for Tank Cars, M-1002. The tank specification shall be identified as "SPECIFICATION PENDING" until such time as a specification is determined. In addition, the following information must be included on each plate:

- (1) Commodity Tank Shell Thickness/Tank Head Thickness (Shell Thick/Head Thick, inches).
- (2) Support structure Shell Material/Head Material(SHELL MATL /HEAD MATL): ASTM or AAR specification of the material used in the construction of the tank shell and heads.
- (3) Support structure Shell Thickness/Tank Head Thickness (Shell Thick/Head Thick, inches).

f. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

g. A person who is not a holder of this special permit, but receives a packaging covered by this special permit, may reoffer it for transportation provided no modification or change is made to the packaging and it is offered for transportation in conformance with this special permit and the HMR.

h. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation. It must be made available to a DOT representative upon request.



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i. A current copy of this special permit must be maintained at each facility where the packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.

9. MODES OF TRANSPORTATION AUTHORIZED: Rail Freight.

10. MODAL REQUIREMENTS:

(a) The applicant must notify the Federal Railroad Administration of any unusual incident or incidents known to it that occur during the movement of cars built under this special permit. FRA may be contacted at:

Federal Railroad Administration  
Hazardous Materials Division  
RRS-12/Mail Stop 25  
1200 New Jersey Avenue, SE  
Washington, DC 20590  
ATTN: William S. Schoonover, Staff Director  
202-493-6229, FAX: 202-493-6478  
[William.schoonover@dot.gov](mailto:William.schoonover@dot.gov)

(b) Prior to manufacturing, UTLX Manufacturing must submit to the FRA a complete set of drawings for the tank car covered under this special permit.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special

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permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm) Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

Continuation of DOT-SP 15036

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PO: Alexy/Schoonover: dl